

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Claim 1-19 (Canceled).

Claim 20 (Original). A ratchet mechanism comprising:

- a case having a first cavity and a second cavity, the first cavity being contiguous to the second cavity and the second cavity having at least a first ramped surface;
- a main gear that rotatably resides in the first cavity, the main gear including a plurality of teeth;
- a pawl that rotatably resides in the second cavity, the pawl being shaped to have at least a first catch portion, the pawl being rotatably movable about a pawl axis to at least a first engaged position wherein the first catch portion of the pawl engages at least one of the teeth of the main gear to prevent the main gear from rotating in a first direction and the pawl being rotatable away from the engaged position to permit rotation of the main gear in a second direction opposite the first direction, wherein a bore extends through the pawl along a bore axis that is generally parallel to the pawl axis; and
- a spring positioned within the bore;
- a lower contact ball and an upper contact ball, the lower and upper contact balls being positioned at opposite ends of the spring, holding the spring in compression, whereby the spring urges the contact balls away from each other, at least one of the contact balls being urged into contact with the first ramped surface, and wherein the contact being movable along the first ramped surface to rotationally bias the pawl toward the first engaged position.

Claim 21 (Original). The ratchet mechanism of claim 20 wherein the case includes a unitary main portion and a cover plate being removably mounted to the main portion to provide access to the first and second cavities.

Claim 22 (Original). The ratchet mechanism of claim 20 wherein the ratchet mechanism is a ratchet head, whereby the case includes a throat configured to be mounted to a wrench handle.

Claim 23 (Original). The ratchet mechanism of claim 20 wherein at least a portion of the pawl has a cylindrical shape complementary to a shape of the cavity.

Claim 24 (Original). The ratchet mechanism of claim 20 wherein the pawl has a concave surface configured to make sliding contact against the main gear operable to limit the rotational movement of the pawl away from the first engaged position.

Claim 25 (Previously Presented). The ratchet mechanism of claim 20, wherein the second cavity includes a floor surface and a ceiling surface, the floor and ceiling surfaces being positioned generally adjacent the top and bottom surfaces of the pawl, respectively.

Claim 26 (Previously Presented). The ratchet mechanism of claim 25, wherein the ramped surface is located on the floor surface of the second cavity.

Claim 27 (Previously Presented). The ratchet mechanism of claim 26 wherein at least another ramped surface is located on the ceiling surface of the second cavity.

Claim 28 (Original). The ratchet mechanism of claim 27, wherein the lower contact ball is urged toward the at least one ramped surface located on the floor surface, and the upper contact is urged toward the ramped surface located on the ceiling surface.

Claim 29 (Original). The ratchet mechanism of claim 20, wherein the ratchet mechanism is selectively operable in a reverse mode, the mechanism further comprising:

a second ramped surface of the second cavity; and
a second catch portion of the pawl;
an externally accessible lever mounted to the pawl to move the pawl so that a contact ball moves from contact on the first ramped surface to the second ramped surface;
wherein in the reverse mode the pawl is rotatably movable to a second engaged position such that the second catch portion engages at least one of the teeth of the main gear to prevent the main gear from rotating in the second direction and the pawl being rotatable away from the engaged position to permit rotation of the gear portion in the first direction opposite the second direction; and
wherein the spring urges at least one of the contact balls toward the second ramped surface, the contact ball being movable along the second ramped surface, thereby rotationally biasing the pawl toward the second engaged position.

Claim 30 (Original). The ratchet mechanism of claim 29, wherein the first and second ramped surfaces define contact paths along the same circumference, separated by a ridge.

Claim 31 (Original). The ratchet mechanism of claim 30, wherein each of the first and second ramped surfaces slope downwardly away from the ridge.